

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JOHN KEENEY HOWIE,  
JARED JOHN SCHAEFER,  
and JAMES EARL TROUT

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Appeal No. 2005-0899  
Application No. 10/058,520

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ON BRIEF

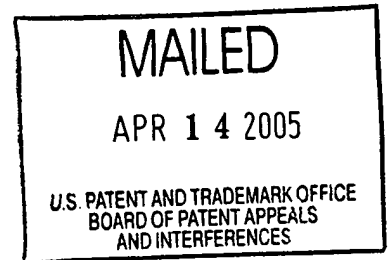
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Before GARRIS, KRATZ and PAWLIKOWSKI, Administrative Patent Judges.  
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-28, which are all of the claims pending in this application.

Appellants' invention relates to polyol fatty acid polyester synthesis from polyol and fatty acid ester reactants wherein a substantially constant reflux rate of the fatty acid ester is



maintained during the reaction.<sup>1</sup> A further understanding of the invention can be derived from a reading of exemplary claims 1, 16 and 25, the only independent claims on appeal. Claims 1, 16 and 25 are reproduced below.

1. A process for the preparation of polyol fatty acid polyester, comprising heating a mixture of polyol, fatty acid ester, emulsifying agent and catalyst under conditions sufficient to cause reaction of the polyol and the fatty acid ester, wherein the fatty acid chains of the fatty acid ester have from about 6 to about 14 total carbon atoms, wherein the emulsifying agent comprises a fatty acid soap having fatty acid chains of from about 16 to about 22 total atoms, and wherein the mixture is heated at a pressure sufficient to maintain a substantially constant reflux rate of the fatty acid ester during the reaction of the polyol and the fatty acid ester.

16. A process for the preparation of polyol fatty acid polyesters, comprising heating a mixture of polyol, fatty acid ester and catalyst wherein the fatty acid chains of the fatty acid ester have from about 6 to about 14 carbon atoms and at least 50% the polyol's hydroxyl groups are esterified and wherein the mixture is heated at a pressure sufficient to maintain a substantially constant reflux rate of the fatty acid ester during the reaction of the polyol and the fatty acid ester.

25. A process for the preparation of higher polyol fatty acid polyesters, comprising heating a mixture of polyol, fatty acid ester and catalyst to form a polyol fatty acid polyester wherein the polyol fatty acid

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<sup>1</sup> Appellants define a "substantially constant reflux rate" as a reflux rate with a variance of no "more than about 10%." See page 11, lines 14 and 15 of appellants' specification.

polyster has a pour point of not greater than about -15°C and wherein the mixture is heated at a pressure sufficient to maintain a substantially constant reflux rate of the fatty acid ester during the reaction of the polyol and the fatty acid ester.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Rizzi et al. (Rizzi)	3,963,699	Jun. 15, 1976
Volpenhein	4,517,360	May 14, 1985

Claims 1-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rizzi. Claims 1-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Volpenhein.

We refer to the brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellants and the examiner concerning the issues before us on this appeal.

#### OPINION

Upon review of the record including the respective positions advanced by appellants and the examiner with respect to the rejections that remains before us<sup>2</sup>, we find ourselves in agreement with appellants since the examiner has not carried the

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<sup>2</sup> A § 102(b) rejection over Kenneally (U.S. Patent No. 5,491,226) as referred to at page 2 of the final rejection was not carried forward in the answer. Consequently, that rejection is not before us.

burden of establishing a prima facie case of anticipation.

Accordingly, we will not sustain the examiner's stated rejections on this record substantially for reasons set forth in appellants' briefs.

In particular, we emphasize that the examiner, in relying on a theory of inherency, must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied prior art. See In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Inherency cannot be established based on probabilities or possibilities. See In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981). Here, the examiner simply has not provided persuasive support for the allegedly inherent description of a substantially constant reflux rate of the fatty acid ester in the polyol fatty acid polyester preparation methods disclosed in either Rizzi or Volpenhein.

In this regard, the examiner points to the abstract and columns 2-5 of Rizzi, and columns 2-4 of Volpenhein for disclosure of reactants and synthesis temperature ranges (110 to 180 degrees centigrade) and pressure conditions (0.1 to 760 mm of mercury), which process parameters are asserted as more or less

overlapping with appellants' claimed reactants and disclosed temperature and pressure reaction parameters as set forth at page 11 of their specification. See pages 4 and 5 of the answer. The examiner argues, in effect, that appellants' claimed substantially constant reflux would be inherently obtained in carrying out the described reaction synthesis of Rizzi or Volpenhein based on the asserted overlap of reaction conditions.

However, as correctly pointed out by appellants (brief, pages 4-6), the examiner has not reasonably established that a substantially constant reflux, as appellants claim, would necessarily occur in the processes disclosed by Rizzi or Volpenhein based on an asserted overlap of some process parameters. Manifestly, the asserted overlap of some process parameters falls significantly short of establishing inherency. The examiner has not alleged, much less established that the applied references employ an essentially identical reaction process to that employed by appellants so as to reasonably establish, prima facie, that the claimed reflux necessarily occurs. Compare, for example, the disclosure at page 11, lines 14-25 and the Example at pages 17 and 18 of appellants' specification wherein a substantial decrease in pressure of 250 to 65 mm of mercury is employed during reaction in one disclosed

embodiment to obtain a substantially constant reflux with the disclosure and examples of Rizzi wherein no corresponding disclosure of a substantial decrease in pressure during the reaction is provided.

Because the examiner's § 102(b) rejections are predicated on an inherency theory which has not been satisfactorily developed by the examiner, we shall not sustain the examiner's rejections.


## CONCLUSION

The decision of the examiner to reject claims 1-28 under 35 U.S.C. § 102(b) as being anticipated by Rizzi and to reject claims 1-28 under 35 U.S.C. § 102(b) as being anticipated by Volpenhein is reversed.

REVERSED

  
BRADLEY R. GARRIS  
Administrative Patent Judge

  
PETER F. KRATZ  
Administrative Patent Judge

  
BEVERLY A. PAWLIKOWSKI  
Administrative Patent Judge

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THE PROCTER & GAMBLE COMPANY  
INTELLECTUAL PROPERTY DIVISION  
WINTON HILL TECHNICAL CENTER-BOX 161  
6110 CENTER HILL AVENUE  
CINCINNATI, OH 45224